Via Electronic Mail and Electronic Filing

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Re: Reply Comments on Act 129 Phase Two Tentative Implementation Order and Market Potential Study, Docket No. M-2012-2289411

Dear Megan Good and Kriss Brown,

The Sierra Club on behalf of its membership, the Pennsylvania Chapter of the Sierra Club, Clean Air Council, PennEnvironment, Physicians for Social Responsibility, Philadelphia Chapter, the Natural Resources Defense Council (NRDC), and the Group Against Smog and Pollution (GASP) (collectively, the Citizen Groups) respectfully submit the following reply comments concerning Pennsylvania's Act 129 in response to comments submitted by other parties regarding the Pennsylvania Public Utility Commission's (the PUC or Commission) May 10, 2012 Act 129 EE&C Phase 2 Tentative Implementation Order (Tentative Order). Thank you for your consideration.

I. INTRODUCTION AND BACKGROUND ON ACT 129

The more energy efficiency measures are deployed in Pennsylvania, the more businesses and residential ratepayers will save on their electricity costs. Throughout the United States, the levelized cost of saving a kilowatt-hour (kWh) of electric energy has proven far lower than the levelized cost of generating that same kWh. Act 129 was designed to be the Commonwealth's Energy Saving Law. Phase I of Act 129 expires May 31, 2013, and has been a resounding success. Under the program, utilities have surpassed targets, with efficiency efforts reducing electrical consumption by 41% more than required. This increased efficiency has an estimated lifetime impact of $2.3 billion in savings for ratepayers, or roughly $8 in savings for every $1 spent on the program.[1]

It is critical that Phase II of Act 129 continues to build on the successes of Phase I. The Citizen Groups herein reassert our position that the electricity reduction targets proposed in the Tentative Order are based on flawed, poorly supported, and overly conservative assumptions in the SWE report, and that reasonable changes to the assumptions would support a policy of 1% reduction in electricity sales per year, similar to targets that will likely be exceeded in Phase I. The Citizens Groups herein also rebut a number of claims, primarily from Electric Distribution Companies (EDCs) that the proposed targets are too aggressive, and that efficiency acquisition costs will rise to the point of reducing program potential. On the contrary, experience in numerous other states indicates that the SWE has greatly overestimated the degree to which acquisition costs will rise.

It is critical that we take advantage of all cost effective energy efficiency available in Pennsylvania for three main reasons. First, efficiency investments reduce the amount of money that utilities need to invest in power production and transmission, which lowers electric rates and benefits even those who do not participate in utility efficiency programs. Second, energy efficiency investments generally have a higher economic multiplier and result in more jobs per unit of investment than expenditures on energy production.[2] Third, efficiency investments result in significant reduction in emissions of carbon dioxide, mercury, sulfur dioxide, and nitrogen oxides by reducing the need for coal-fired electricity.

As such, the Citizen Groups again strongly urge the Commission to revise the Tentative Order and implement a strong Phase II Energy Efficiency and Conservation (EE&C) program under Act 129, as described more fully below, which preserves both the consumption and demand reduction targets from Phase I, and sets clear parameters for assessment of penalties.

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[1] Optimal Energy Integrated Energy Resources "Pennsylvania 2012-2018 Energy Efficiency Goals" (December 19, 2011), at 2, available at http://www.pennfuture.org/UserFiles/File/FactSheets/Report_Act129goals_20111220.pdf, hereinafter "PennFuture Report".

[2] ACEEE "How Does Energy Efficiency Create Jobs?", available at http://www.aceee.org/fact-sheet/ee-job-creation.

II. PROPOSED PHASE II ENERGY REDUCTION TARGETS UNDERESTIMATE ENERGY SAVINGS POTENTIAL AND SHOULD BE STRENGTHENED.

The Citizens Groups have previously argued that a series of overly conservative, sometimes arbitrary, and sometimes inconsistent assumptions led to a finding that statewide average program potential electricity consumption reduction is only 2.3% for the next 3-year phase.[3] This finding is made in spite of the fact that, on average, EDCs are on track to exceed the 3-year Phase I target of 3%. Consequently, we argued that the Commission should adopt Phase II targets that achieve 3% additional savings over the next 3-year phase (with 1% annual interim targets), so that Pennsylvania ratepayers and businesses may continue to realize the aforementioned economic and environmental benefits of increased energy efficiency.

In contrast, several other commenters, including the Energy Association of PA (EAP), PPL, First Energy, and PECO conclude that the targets set forth in the Tentative Order are too aggressive. They base this assertion on arguments that acquisition costs are expected to be higher in Phase II, and that updates to TRM manual and changes to federal efficiency standards will reduce the savings that can be attributed to each measure. Although these issues are interrelated, we will address each on separately below.

A. Acquisition costs cannot be assumed to rise significantly over the next three years.

The claim made by EAP and many EDCs that acquisition costs will rise is already accounted for in the SWE analysis, which estimated that acquisition costs for 2013-2018 will be 62% higher than current acquisition costs.[4] This results in an estimated acquisition cost of $221/MWh, and includes a poorly supported assumption that incentive costs will be 25% higher across the board (page 52), an assumption the Citizens Groups took issue with in our previous comments.[5]

The Citizens Groups believe that empirical evidence from many other states with energy efficiency programs support the prediction that acquisition costs will rise more slowly than the SWE projects, if at all. We point to the following examples, offered in our previous comments, and comments made by the American Council for an Energy Efficient Economy (ACEEE):

1. In Vermont, the average annual acquisition cost rose only 6.3% in the second three-year period (2003-2005) compared to the first three program years (2000-2002).[6]
2. Energy efficiency acquisition costs in the Pacific Northwest actually declined significantly after the first 4 years of the program, and were then relatively flat for the next 16 years. Average

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[3] Citizens Groups Comments (6/25/2012), Section II

[4] GDS Associates, Electric Energy Efficiency Potential for Pennsylvania, Final Report 5/10/2012, page 7.

[5] Citizens Groups Comments (6/25/2012), Section IIB

[6] Citizens Groups Comments (6/25/2012) at page 4-5.

acquisition costs over this entire time period were comparable to Phase I acquisition costs in Pennsylvania.[7]

3. Utilities throughout the country have acquisition costs of $160-190/MWh, which is lower than the projected Phase II acquisition costs, despite having programs that have been around longer and have presumably reached higher saturation of lowest cost/highest return measures.[8]
4. A study by Synapse Energy Economics provides evidence that acquisition costs actually tend to decrease over time due to program innovation, economies of scale, and learning curves.[9]

Such real world data offer validation to our previous argument that there are competing forces at play with respect to acquisition costs. The EDCs are not wrong in claiming that forces such as inflation, saturation of specific measures, and rising baseline efficiency act to raise acquisition costs. However, their argument fails to account for competing forces such as rapidly developing technology, rising public understanding of the benefits of efficiency, increasing familiarity with programs, and improvements in program administration. In many other states, these competing forces act to control acquisition costs, and those who claim costs will rise significantly have failed to offer compelling evidence that Pennsylvania is on a different trajectory than these more experienced states.

B. Annual TRM revisions do not necessarily lead to lower energy savings potential or higher program costs.

Several commenters, including EAP, PPL, and First Energy, argue that annual revisions to the technical resource manual (TRM) result in decreased savings values as baseline levels are adjusted to account for tightening codes and regulations. The Citizens Groups take issue with this argument for two reasons.

First, very little evidence is provided to substantiate this claim. One exception is PPL, which on page 9 provides one example of how the deemed savings from refrigerator replacement has declined. Residential lighting is another example that is cited elsewhere. These are but two examples in a TRM that contains hundreds of individual measures, and no evidence is provided that they are representative examples, or that the cumulative impact of TRM changes is to reduce savings potential.

Second, to argue that TRM revisions will always result in downward trending savings potential is once again to look at only one side of the equation. Yes, baselines do change as appliance and lighting standards take effect. However, as we argued on page 4 of our previous comments, there are other factors influencing the savings rate. Technologies are constantly evolving, and new technologies and equipment designs serve to widen the gap between the standard and most efficient models in a product class. Residential lighting and televisions are two product classes where LED technology is rapidly

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[7] ACEEE Comments (6/25/2012) at page 4

[8] ACEEE Comments (6/25/2012) at page 4-5

[9] '"The Sustainability and Costs of Increasing Efficiency Impacts: Evidence from Experience to Date." 2008. Synapse Energy Economics, http://aceee.org/proceedings-paper/ss08/panel08/paper30, cited in ACEEE comments (6/25/2012).

becoming more cost-effective and mainstream, and improving on what was previously considered energy efficient. This evolution in technology is not continuous and smooth, and so the overall savings in the TRM may fluctuate from year to year. However, to assume that TRM revisions will necessarily result in lower savings per measure on average is to assume that there is no potential for technological improvement in energy efficiency, which is clearly erroneous.

Furthermore, the deemed savings in the TRM are but one component of overall acquisition cost. Even if per measure savings do decline in the short term, other economic forces are in play, such as improvements in program administration and rising public awareness of efficiency, that can offset this effect as demonstrated above.

III. INTERIM ENERGY REDUCTION TARGETS SHOULD BE ADOPTED FOR PHASE II.

The Citizens Groups would like to re-emphasize the importance of interim targets in Phase II. In our previous comments we repeatedly argued for 1% annual electricity savings. The Citizens Groups believe it is important for EDCs to be subject to annual interim targets for two reasons: 1) continuous spending on programs is likely to be more cost-effective than numerous ramp-ups and ramp-downs at the beginning and ending of phases, and 2) EDCs are more likely to meet their overall targets if they are subject to interim targets.

IV. FULL CARRYOVER OF PHASE I EXCESS UNDERMINES ALREADY CONSERVATIVE PHASE II TARGETS.

Several EDCs and the Industrial Consumers argue in favor of full carryover to Phase II of excess credits earned in Phase I. In our previous comments, the Citizens Groups argue for partial carryover as a compromise to balance the need to incentivize over-performance with the need to ensure the maximum deployment of efficiency measures for each dollar spent (Section IV, page 8). We stand by our original comments on this issue.

The Industrial Consumers further argue that Phase II budgets should be reduced for over-performance, in addition to Phase II targets. The Citizens Groups feel that this is the worst of both worlds. Not only does it limit the efficiency that can be achieved in Phase II, it also removes the incentive for utilities to surpass their targets in the prior phase, as the lower Phase II targets would be just as difficult to achieve as the original ones when the budget is lowered accordingly. This proposal effectively transforms the electricity reduction targets from minimums to maximums, which would be bad public policy given the aforementioned benefits of energy efficiency, and is contrary to the legislative intent of Act 129.[10]

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[10] *See, e.g.*, 66 Pa. C.S. § 2806.1(c)(1) (mandating that the "total annual weather-normalized consumption of the retail customers of each electric distribution company shall be reduced by <u>a minimum</u> of 1%") (emphasis added); *see also id.* at § 2806.1(c)(2) (mandating that the "total annual weather-normalized consumption of the retail customers of each electric distribution company shall be reduced by <u>a minimum</u> of 3%") (emphasis added); *id.* at § 2806.1(d)(1) (mandating that peak demand "shall be reduced by <u>a minimum</u> of 4.5%"). Indeed, the legislature has

V. A CLEAR PROCESS OF PENALTY ASSESSMENT SHOULD BE DEFINED.

In previous comments, the Citizens Groups argued for clarification in the final order of how the Commission would exercise its authority to assess penalties under Act 129, and we reiterate that request. The Citizens Groups also strongly disagree with EAP's request that EDCs be allowed to demonstrate compliance by using "best efforts" to achieve a target, rather than actually achieving the target (page 21). This is not transparent and runs counter to the intent of Act 129. The Tentative Order already proposes to adjust the targets for each EDC based on its relative budget and acquisition costs, which should alleviate any EDC concerns that its target is unfair relative to others.

This suggestion by EAP simply underscores the need for a more transparent and predictable process of penalty assessment; one that does consider the good-faith efforts of an EDC to meet its targets when deciding the magnitude of the penalty, but which does not absolve EDCs of the need to meet targets and fulfill the intent of the energy savings legislation.

VI. PEAK DEMAND REDUCTION OBLIGATIONS SHOULD CONTINUE FOR PHASE II.

The Citizen Groups support a continuation of demand reduction targets. We have signed onto the comments submitted by the Joint Demand Response Commenters and ask that you please refer to those comments regarding our exact views on peak demand reduction.

VII. STUDY OF ON-BILL FINANCING SHOULD BE EXPEDITED.

Numerous EDCs have argued against the use of on-bill financing for energy efficiency improvements. The Office of the Consumer Advocate seeks to exclude low-income households from participation in on-bill financing programs, possibly due to increased risk of service disruption for non-payment. The Citizens Groups recognize that there are challenges posed by on-bill financing, but also believe that this mechanism holds great potential for reducing market barriers for many otherwise economic efficiency measures. The Citizens Groups support the formation of a working group to study the issue, reiterate our desire to serve on the working group, and ask that the Commission specify an expeditious deadline for convening the working group in the final order.

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directed the Commission to look to cost efficacy as the only ceiling on reduction targets: if at any given level of reduction, even one much higher than an annual 1% target, "the benefits of the program exceed the costs, the commission <u>shall adopt additional required incremental reductions</u> in consumption." *Id.* at § 2806.1(c)(3) (emphasis added). Put another way, reliance on considerations extraneous to the cost efficacy of additional electricity reductions targets—as the Industrial Consumers appear to advocate—would be arbitrary and contrary to the Act.

VIII. CONCLUSION

Pennsylvania is still in the early stages of implementing an energy efficiency program. Compared to other states that have had efficiency targets in place for many years, Pennsylvania still has relatively large opportunities to implement low cost energy savings. To simply assume that these opportunities have been exhausted after only three years is premature. Experience in most other states has shown that at this stage in the program, efficiency acquisition costs do not significantly increase, and in some cases even decrease as experience with program implementation begins to pay dividends. Therefore, in the interest of keeping our economy competitive, our air clean, and our electricity affordable, Pennsylvania should join at least 17 other states that have electricity reduction targets of at least 1% per year.

Sincerely,

/s/

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